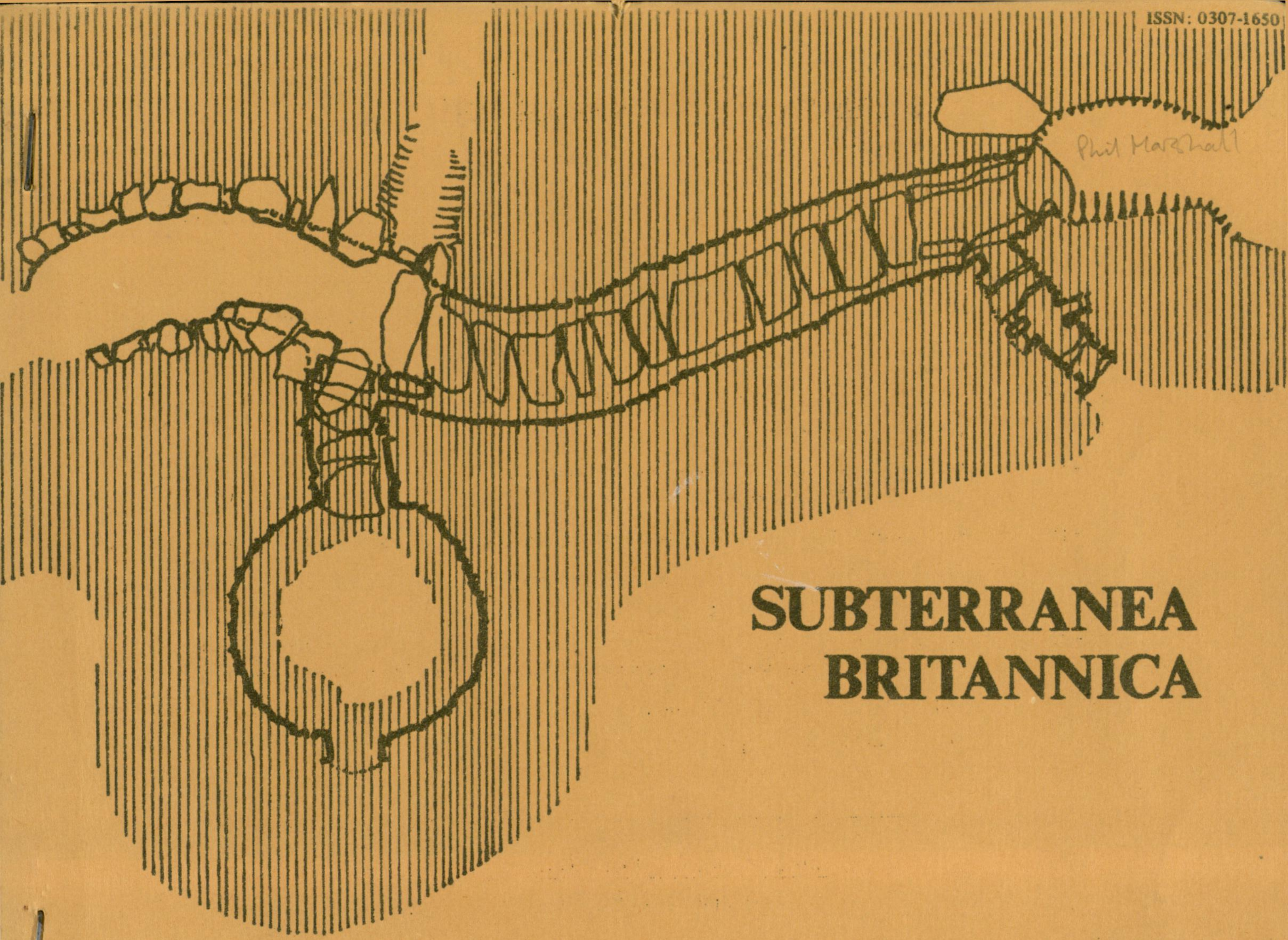
ISSN: 0307-1650



Phil Marshall

SUBTERRANEA BRITANNICA

Bulletin No. 18

Compiled and published by
Subterranea Britannica
and printed by SPRINT of Royston, Herts.

THE BULLETIN OF SUBTERRANEA BRITANNICA

No 18 - August 1983

CONTENTS

Page 2 Editorial

2-3 Summary of Day Conference, 29th January 1983 - Margaret Walker

3-9 Summary of a Study of County Cork Souterrains - J.P. McCarthy

10-11 Letter to the Editor: Ramsgate Tunnels - D. Fuller

11 Hermit of Dumpton - John E. Vigar

12-16 The Underground Passages at 'Beckets', Eastry, Sandwich, Kent - G. Beryl Moncur

15-19 The Second World War Underground Shelters at Ramsgate - John E. Vigar

19 Book Review - Paul W. Sowan

20-22 The Surveying of the Chaldon Bottom Firestone Quarries, near Merstham, Surrey - Interim Report May 1983 - Peter Burgess

21 Dudley Area Study Weekend, 24-26 June 1983 - Deryck Laming

21 Dates for Your Diary

SUBTERRANEA BRITANNICA

EXECUTIVE COMMITTEE

Officers:

Sylvia P. Beamon, M.A., Chairman, Publication Secretary and Representative on the General Council of the Societe Francaise D'Etude des Souterrains - 16 Honeyway, Royston, Hertfordshire, SG8 7ES (Tel: Royston (0763) 42120).

Paul W. Sowan, B.Sc., F.R.G.S., F.G.S., F.L.S., Secretary - 96A Brighton Road, South Croydon, Surrey CR2 6AD.

Eleanor Clark, Honorary Treasurer - 46 Sun Hill, Royston, Hertfordshire. (Tel: Royston (0763) 4279).

Committee Members:

Dave Barnes, Tom Doig, Rod Le Gear, Alan MacCormick, Maureen Mahony, Phil Marshall, Roger Morgan, Christopher Montague, Anne Smith, Margaret Walker.

This Bulletin is the official publication of Subterranea Britannica.

Subterranea Britannica is in association with Societe Francaise D'Etude des Souterrains of France, Arbeitskreis fur Erdstallforschung of Germany and SOBERES of Belgium.

The bulletin has been compiled by Sylvia P. Beamon with assistance from Tom Doig, Rod Le Gear, Deryck Laming and Jenny Plumer.

EDITORIAL

Sylvia P. Beamon

Members will recall that the Society received a Lloyds Bank Award for Independent Archaeologists last year towards the surveying of the Chaldon Bottom Firestone Quarries near Merstham in Surrey (see p 20-22 in this issue for an Interim Report). The Chairman and Secretary attended this year's ceremony, held in the rooms of the Society of Antiquaries of London on 30th March, as invited guests.

Congratulations to Phil Marshall who has obtained a place at Cardiff University to read Civil Engineering in the Autumn; to Rod Le Gear who has been made up to a full member of the Association of Archaeological Illustrators and Surveyors, and to Paul Sowan who has become the President of the Croydon Natural History and Scientific Society Ltd.

Almost by coincidence, most major articles in this issue of the Bulletin concern sites in East Kent, showing how important chalk is as a host for usable souterrains. These could be the subject of a future study weekend.

* * *

DAY CONFERENCE, LUCY CAVENDISH COLLEGE, CAMBRIDGE

29 January 1983

Margaret Walker

The Conference, under the chairmanship of Mrs Sylvia Beamon, began at 10.30 am; it was well attended by more than 30 people. Several papers were read and are summarised as follows:

1. Hobsons Conduit, Cambridge

Dr E.A. Gray reported on two biological surveys (1946-9 and 1969-73) of the brook from its source springs to the head of the conduit. The principal sources of the conduit are - or were - the 'Nine Wells' springs, two miles south of Cambridge but, at the time of the latter survey, some springs had ceased to flow - the cause of which is unknown.

The construction of the conduit, parts of which flow underground, was completed in 1610 at the public cost of £100.00. The purpose of bringing the water into Cambridge was to flush the unhealthy dry King's Ditch, but it also was to the great benefit of many of the citizens.

Due to the fact that the wide shallow valley has been under cultivation for cereals perhaps as far back as Romano-British times, the continuous planting of the one crop has produced a bacterial microflora which explains the presence of gram-negative rods found in the stream.

2. Pinner Chalk Mines

Mr D. Chisholm reported that these mines, the nearest to North London, are dated by graffiti to before 1830. Variation in the method of tunnelling revealed the more expert methods in the later mine. Chalk was highly prized as a field dressing and was probably extracted by agricultural workers rather than experienced miners. Mined chalk was preferable to open-cast chalk as less minerals had been leached away. The mines were entered by vertical shafts, most of which are unknown, except by accidental discovery. Possibly more unknown mines may be revealed in this area by unexpected subsidences - as was the experience of one farmer who discovered a shaft, 120 feet, deep near the back door of his farm. At the bottom of the shaft is a cast iron pipe of 7" internal diameter, going further into the depths. It was suggested that this may be of the same date as a construction made for Charles Dickens at Gadshill, to obtain water.

Day Conference, January 1983 (continued)

3. Cave dwellings in North America and the Canary Islands

Mr Bruce Osborne reported on the Navajo Indian settlement in huge wind-eroded caves in the canyons of Arizona. These excellently constructed houses of stone and of more than one storey were arranged as planned villages in each of the caves shown. The period of settlement was 1100-1300 AD and were abandoned because of drought.

The Spanish conquest of the Canary Islands in 1483 appears to have ended domestic occupation of caves excavated in the volcanic tuff of the third largest island, Grand Canaria - a curious feature was the construction of small caves pitting the face of an escarpment, each of which would offer little room for more than one person. (A more detailed account will be published in a later volume).

4. A chalk mine at Shenley, Herts

Mr Rod Le Gear reported on the recent investigation of one of the deepest and largest chalk mines so far discovered. It has at least two vertical shafts which have been used for some considerable time as dumps for farm rubbish. This mine has not yet been fully examined.

5. Anstey Castle, Herts, Project

Members of Subterranea Britannica and the Hatfield Sub Aqua Club are seeking a tunnel that supposedly enters the castle mound through a gate which must lie below the present water level in the moat (see previous papers in Bull. Subterranea Britannica Nos. 3, 4, 7 and 16).

Sylvia Beamon introduced the project, giving details as supplied by people who said they had seen the gate (or gates) which also confirms historical documentation.

Mr Paul Jones gave a graphic account of the difficulties encountered by a diver attempting to investigate below the surface of the moat in nil visibility and through a matrix of roots, twigs and saplings.

The attempts to build a coffer dam in the summer of 1982 were not successful as the rate of inflow almost equalled that of the water being pumped out into the moat. Another dam, to be constructed with a steel frame off-site, is proposed for next season.

Mr Tom Doig gave an account of the information about Anstey in the Gerish collection at the Public Record Office, Hertford, but it seems of little help as the press cuttings lack precise details as to their origin; however, Mr Doig is pursuing his enquiries.

HOW TO JOIN SUBTERRANEA BRITANNICA

Membership of Subterranea Britannica is open to all those interested in the study of all kinds of man-made and man-used underground structures.

Annual subscription rates (which have just had to be increased) are: Individual membership £4.00; joint husband/wife £5.00; young people (14-18 years) £2.00; full-time students £2.00; corporate membership £10.00.

Application forms are available from the Secretary, Paul Sowan,
96a Brighton Road, South Croydon, Surrey CR2 6AD.

SUMMARY OF A STUDY OF CO CORK SOUTERRAINS (1)

J.P. McCarthy

There are several thousand souterrains in Ireland, and in Co Cork to date we have records of the existence of approximately 500. The name souterrain is an antiquarian's term for these monuments; other names used in the past were Dane's Hole and Rath Cave. Folknames for souterrains range from the non-descript Cave or Poll Talaimh to, in specific cases, Tig-faoi-talaimh and Carraig-an-tseomra. Dr Anthony Lucas states in a recent paper (2) that probably, during the period in which they were used, the common name for a souterrain was Uam (Uaimh in modern Irish).

Influenced partially by geological factors, souterrains were made in either of two ways: they may be built of stone masonry or tunnelled in clay or rock. The procedure for a stone-built souterrain was to excavate a trench to the required depth. Within this the structure was built, each course of masonry being supported on the outside by a packing of soil between the stones and the trench wall (18). Tunnelling for a clay or rock-cut souterrain was done by means of excavating one or more vertical shafts to a suitable depth. Allowing for ceiling height and sufficient clay and soil overhead to support a cavity, the chambers were then made by excavating outwards horizontally.

Any examination of a souterrain leaves one classifying its features into two categories: structural and functional. Structural features to be noted may be the site's compartment plans and masonry characteristics or construction shafts. Functional features are those which reflect the usage of the souterrain: vents, drains, steps, ceiling shafts and entrances.

In plan, all souterrain compartments normally conform either crudely or sharply to one of three basic shapes; long narrow galleries, rectangular chambers and circular cells. Using this basic definition I have devised a classification system for Cork souterrain designs which will be described later.

There are a number of common misconceptions about these sites. When investigating or enquiring about souterrains in Co Cork I have often been told: that they run beneath rivers, that they join neighbouring ringforts, or that they honeycomb the interiors of ringforts. The idea that souterrains join ringforts, for example, is usually conceived when a site is discovered in a field between two ringforts which are known to have what are locally termed 'caves'. The souterrain is then assumed, without investigation, to be a passage between two 'forts'.

In Co Cork the largest group of souterrains are found within or in the vicinity of a variety of surface structures; a ringfort is by far the most common association though churches, promontory forts, rectangular earthworks and stoneforts also occur near or in connection with them. In terms of numbers, unassociated souterrains form the second largest category of recorded sites. They pose two questions which we have not as yet attempted to answer scientifically. Were there, at one time, surface structures above them of which we now have no visible and no recorded evidence? Did the builders of these souterrains intend that the locations of their sites should be unmarked? At a future date excavation and possibly aerial photography may bring us some way towards answering these questions.

In the course of analysing the Co Cork data (3), one interesting fact emerged relating to church-associated sites. This was that the largest tunnel souterrains in the county had been found in the vicinity of churches. These are Duniskey (4) near Macroom, Kilmocomogue (5) near Kealkil and Templebryan (6) near Clonakilty. Though we do not have sufficient evidence to justify a similar statement regarding souterrains built with stone masonry, Kilclogh (7), near Blarney, Co Cork (8) is the largest recorded stone-built site in the county and a field adjacent to it is known as the 'graveyard' field.

Within ringforts there is no particular location for souterrains. They can occur at the centre or at the sides of the interior. Many are entirely contained within the bounds of the interior though occasionally they may lead out into an adjoining field. Examples of souterrains connected with houses in ringforts have been discovered by excavation at Ballywee, Co Antrim (9), Cush, Co Limerick (10) and Leacacabuaile, Co Kerry (11). In Co Cork, Knockdrum stonefort near Castletownsend (12) is the only definite example. Twohig (13) recorded a possible association at Castlemagner in North Cork though this was not substantiated by an investigation of the ringfort interior.

Because souterrains did not provide clearcut answers, studying them has often been regarded as an unproductive exercise. This has resulted in an impoverished scientific record with the majority of discoveries either poorly noted or closed without a detailed examination having been made. Excavation in most cases is either a rescue operation or an additional factor to an above ground excavation dig.

Dating and function of souterrains are assessed on the basis of association and finds. Dating by association means that we must accept a date range for the surface structure in question and assume that the souterrain is contemporary. In the case of ringforts, for which we do not know the limits of the date range, this means that their souterrains were built and in use between Early Christian and Medieval times (5th-13th Century). This does not, however, contribute towards an overall date range for souterrains in general regardless of the type of surface association. Attempting to date souterrains by means of finds poses the same problem. Whereas artefacts, ogham stones and radiocarbon dates such as 670 A.D. and 690 A.D., for an excavated ringfort souterrain at Raheennamadra in Co Limerick (14), fit in well with the Early Christian/Medieval time range, they do not help us to decide as to when souterrains were first built and when they went out of use.

The following are the suggested functions for souterrains:

1. Domestic storage places.
2. Places of concealment for valuables.
3. Temporary and permanent dwellings.
4. Sleeping quarters in ringforts.
5. Places of refuge.
6. Anchorites' cells.

Most of these theories were put forward in the past based on the idea that all souterrains were one and the same kind of monument. Some theories such as those of temporary and permanent dwellings, anchorites' cells and sleeping quarters cannot be reliably substantiated with factual evidence. That they were used as places of storage, concealment and refuge can be suggested on the basis of finds and features, or circumstantially, on the basis of association and early documentary references (15). Ringfort souterrains could provide a cool storage place for dairy produce. Wine could be stored in church souterrains. Coins have been found as at Castlefreke, Co Cork (16), and Knowth in Co Meath (17). Rock-cut benches at Duniskey and the presence of vents and drains in many sites, all hint at the above three functions. But souterrain is a blanket term and individual sites should be considered in the context of associated surface structures.

A classification of Cork souterrains, based on 110 drawings and 155 reports, may be suggested, there are essentially three types (Fig. 1):

Type A	Rectangular stone-built chambers and galleries
Type B	Circular ovoid chambers either stone-built or earth-cut, clay built
Type C	Earth-cut (19) and rock-cut chambers not lined with stones.

Each type has a threefold subdivision:

A1. A single chamber or gallery (27 examples)
A2. A site of two chambers or galleries at right angles to each other and having an L- or T-shaped plan (12 examples)
A3. Three or more galleries or chambers at right angles to each other (8 examples)

B1. A passage leading to a beehive cell (9 examples)
B2. Two or three cells joined by creepways, with or without a passage leading to them (9 examples)
B3. Four or more cells in a cluster formation or in a straight line (5 examples)

C1. Two chambers with their long axes parallel and joined by a creepway (8 examples)
C2. Group of chambers arranged around one or two central columns (3 examples)
C3. Series of three to seven chambers with long axes of some parallel, at right angles or following in a line (32 examples)

All other designs, for which there are less than three examples, have been classified as Group D, which is a miscellany designed to take such sites until future discoveries can allow for new types or prove some to be oddities.

Once the classification was completed it was interesting to see the geographical relationship of individual sites within each type. A distribution map (Fig. 2) shows the following:

Type A	These sites are mainly located in that area stretching east to west, border to border of the county and defined to the north by the Blackwater River and to the south by the Bandon River. Though this is the main concentration area, outliers of all three sub-types occur.
Type B	Excluding B3 the main concentration is on both sides of the River Blackwater with one outlier south of the River Lee.
Type C	These are mainly located in that area occupying the southwest portion of the county, defined to the north by the River Lee and to the east by a north-south line from the Old Head of Kinsale to the River Lee. This distribution is approximately coterminous with the newer glacial drift in this area and probably explains why clay-cut sites are so common here.

These distribution patterns indicate only the main areas of concentration for the map depends for its accuracy on the generally poor standard of recording, over a 260-year period, i.e. about 1717-1977.

NOTES AND REFERENCES

1. This summary was prepared for a talk given to the Cobh (Co Cork) Historical and Archaeological Society in March 1982.

2. LUCAS, A.T. (1971-3) Souterrains: The Literary Evidence. Bealoideas, Vol. 39-41, p. 170.

3. McCARTHY, J.P. (1977) The Souterrains of Co Cork. (An MA Thesis, at present with the publisher).

4. McCARTHY, J.P. (1978) The Duniskey Souterrain, Co Cork. Bull. Subterranea Britannica No. 7, pp. 5-8.

Co Cork Souterrains (continued)

5. FAHY, E.M. (1960) A Souterrain at Lisheen, Co Cork. Jl. Cork Hist. and Arch. Soc., Vol. LXV, pp. 142-3.
6. TWOHIG, D.C. (1976) Recent Souterrain Research in Co Cork. Jl. Cork Hist. and Arch. Soc., Vol. LXXI, pp. 31-33.
7. Unpublished site. Surveyed J.P. McCarthy, 1976. Included in forthcoming publication of MA Thesis.
8. Large is defined for the purposes of my study as either the total length of a souterrain or the floor plan size of particular compartments. Templebryan is not large in terms of length and neither is Kilclogh.
9. LYNN, C.J. (1974) Ballywee, Co Antrim. Excavations 1974. Summary Accounts of Archaeological Work in Ireland, pp. 4-6.
10. O RIORDAIN, S.P. (1940) Excavations at Cush, Co Limerick. Proc. Roy. Irish Acad., Vol. XLV,C, pp. 83-181.
11. O RIORDAIN, S.P. and FOY, J.B. (1941) The Excavation of Leacanabuaile Stone Fort near Caherciveen, Co Kerry. Jl. Cork Hist. and Arch. Soc., Vol. XLVI, pp. 85-99.
12. SOMERVILLE, B.T. (1931) The Fort on Knockdrum, West Carbery, Co Cork. Jl. Roy. Soc. Antiq. Irel., Vol. LXI, pp. 1-9.
13. TWOHIG, D.C. (1976) Recent Souterrain Research in Co Cork. Jl. Cork Hist. and Arch. Soc., Vol. LXXXI, pp. 19-23.
14. STENBERGER, M. (1966) A ringfort at Raheennamadra, Knocklong, Co Limerick. Proc. Roy. Irish Acad., Vol. 65,C, pp. 37-54.
15. LUCAS, A.T. (1971-3) Souterrains: The Literary Evidence. Bealoideas, Vol. 39-41, pp. 165-191.
16. McCARTHY, J.P. and DOLLEY, M. (1977) The Castle Freke (Rathbarry, Co Cork) find of 10th Century Anglo-Saxon Coins. The Numismatic Circular, Nov. 1977, pp. 488-490.

also

McCARTHY, J.P. (1979) Co Cork Souterrains. Bull. Subterranea Britannica No. 10, pp. 3-8.

17. DOLLEY, M. (1969) The Anglo-Saxon pennies from the Upper Souterrain at Knowth. Brit. Numism. Jl., Vol. 38, pp. 16-21.
18. Variations of this method, and contradictions of it as explained here, also occur. Further excavation is required to substantiate the norm - if one exists!
19. Earth-cut is synonymous with clay-cut.

LETTER TO THE EDITOR (extract)

Dear Editor,

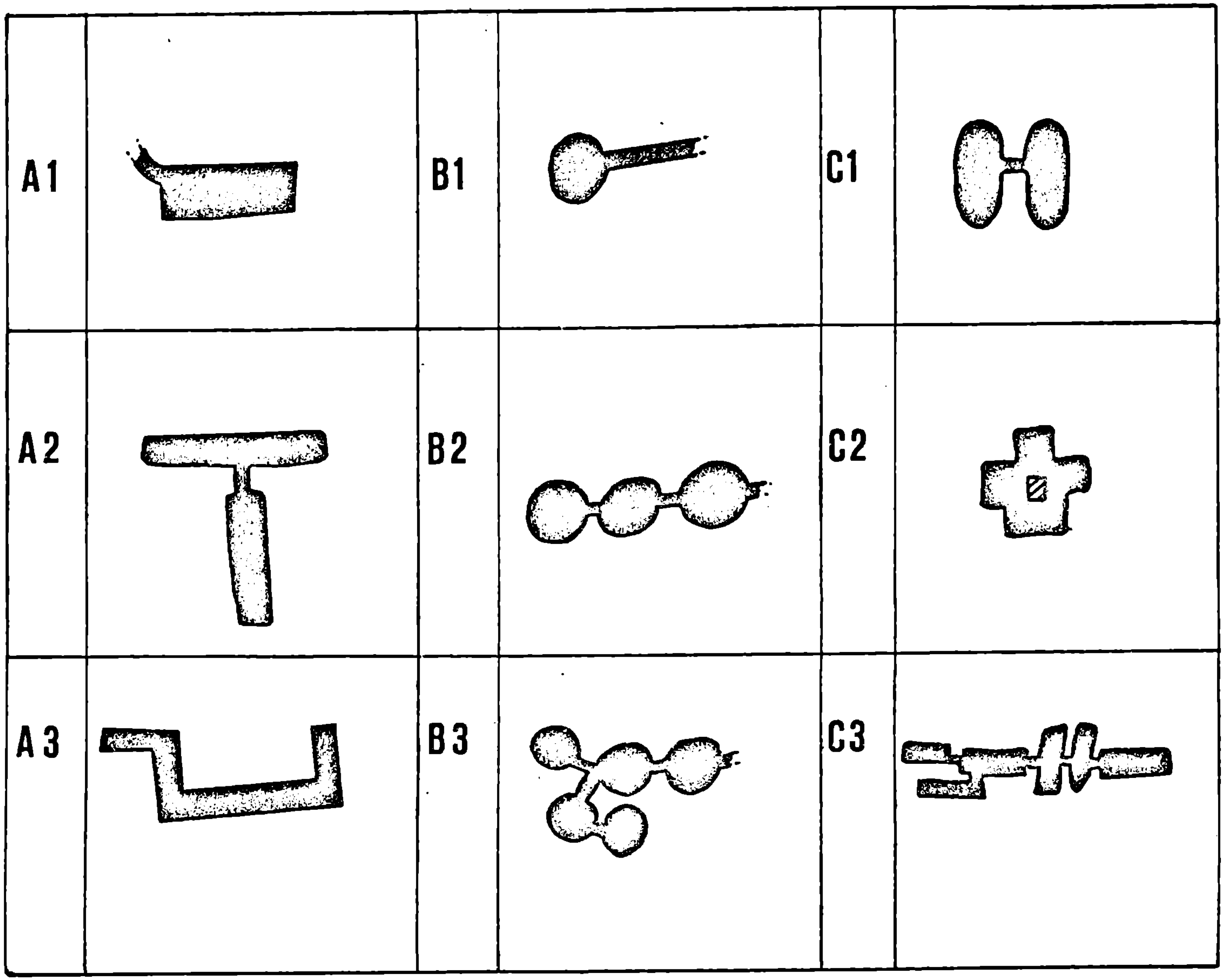
RAMSGATE TUNNELS

... Regarding the Ramsgate tunnels, the ones to which I was referring were those allegedly made, mainly in connection with smuggling, and probably in the 18th and 19th Centuries. I was first told about them by an old retired baker, a Mr Stone, in 1940; he was then about 80, so his memories must have gone back to the 1870s and 1880s. At this time Ramsgate was at its busiest as a coastal and fishing port, and smuggling was rife.

(continued on page 10)

FIG. 1

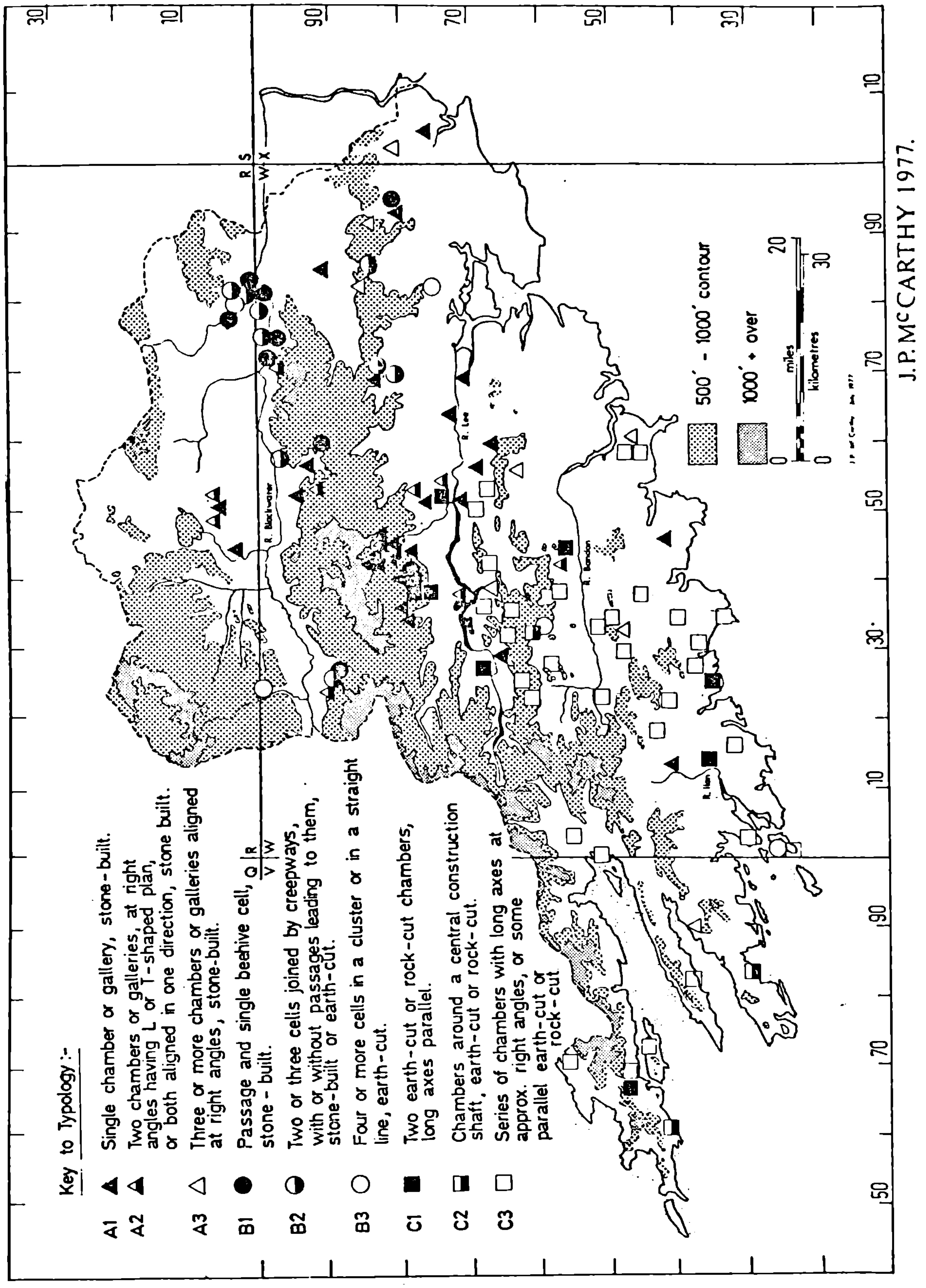
CLASSIFICATION SYSTEM FOR CO. CORK SOUTERRAINS.



J. P. M^c^CARTHY 1977.

FIG. 2

DISTRIBUTION OF SOUTERRAIN TYPES, CO. CORK.


Key to Typology:-
A1 ▲ Single chamber or gallery, stone-built.
A2 ◭ Two chambers or galleries, at right angles having L or T-shaped plan, or both aligned in one direction, stone built.
A3 △ Three or more chambers or galleries aligned at right angles, stone-built.
B1 ● Passage and single beehive cell, stone-built.
B2 ◐ Two or three cells joined by creepways, with or without passages leading to them, stone-built or earth-cut.
B3 ○ Four or more cells in a cluster or in a straight line, earth-cut.
C1 ■ Two earth-cut or rock-cut chambers, long axes parallel.
C2 ◧ Chambers around a central construction shaft, earth-cut or rock-cut.
C3 □ Series of chambers with long axes at approx. right angles, or some parallel earth-cut or rock-cut.
Q R
V W
R S
W X
R. Blackwater
R. Lee
R. Bandon
R. Ilen
500' - 1000' contour
1000' + over
0 20 miles
0 30 kilometres
J.P. McCARTHY 1977.
30
10
90
70
50
30
50
70
90
10
30
50
70
90
10

CORRIGENDUM

Letter to the Editor: Ramsgate Tunnels (continued from page 7)

According to Mr Stone, smuggled goods were brought ashore at Dumpton Gap (TR 396667), taken up the "old chalk road" and into either north or west, or south through a tunnel into the grounds of Dumpton Close (TR 385664). I explored the grounds in 1940, and there is no doubt there was a sunk road (TR 386665). All trace of this is now hidden under housing.

The landlady of the Bull and George Hotel (destroyed by bombing in 1917, site now occupied by Woolworth's) was said to have been involved. She took in washing from the big houses, and collected and distributed brandy, etc. in the pram on which she wheeled her baskets of washing.

There were tunnels in the cliffs, somewhere, which I explored when a boy. From an entrance about ten feet (about TR 395660) above high-tide mark, they zig-zagged up to a locked gate on the cliff-top in the grounds of East Cliff Lodge, the seat of Sir Moses Montefiore. I think most of these have now fallen into the sea.

There were similar, but much more extensive tunnels, on the West Cliff, at TR 377643, which were open to the public as The Smugglers' Caves. The entrance was in the garden of Pugin's old house, The Grange. Most of these tunnels fell into the sea in 1944 or so, and all that was left was buried in the repair work. It is just possible that St Augustine's Abbey might have some details of these.

At TR 356644 was the Seaweed Tunnel, and as far as I know this still exists. It was big enough to take a horse and cart through and was used for bringing seaweed up for manure on Little Cliffsend and other farms.

That, to the best of my knowledge, is the limit of the facts. But the stories envisage a network of tunnels linking various parts of the town. Addington Street, Liverpool Lawn, Leopold Street (now a car park) and other tunnels are described as having interlinked cellars and secret stairs built into walls and chimneys so that men and goods could be swiftly dispersed in emergency. A house particularly mentioned in this context is the Lord of the Manor (TR 356651), which is only a few hundred yards from Little Cliffsend!

Another story concerns Ellington House (TR 376654). This was the scene of a particularly brutal wife-murder, for which the husband was promptly hanged - this is well documented, and I believe is recounted in the Ingoldsby Legends. The house was later demolished, although the cellars were left open, and later were said to be haunted. Loud and mysterious knockings were heard, terrifying the ignorant peasantry. They were later filled in, and the site is now marked by an ornamental terrace in Ellington Park.

The story was that the cellars were connected by tunnel with a chalkpit (TR 377655); the end was boarded up and used as a stable; when the horses kicked the boarding, the tunnel acted as a speaking-tube, and the noise was heard at the house. When I was young, the chalk pit was used as a timber yard, and there were certainly tunnels at the bottom end where the horses and timber-drags were kept. The story is interesting, in that the great problem with tunnels is getting rid of the spoil. But here it would have come out of the chalk pit in the usual way of business!

During and after the war there were a number of unexplained subsidences, and shafts opening up, in streets and gardens in different parts of the town; there were also stories like tunnels leading out of the ruins of Townley House (now buried under an extension to Chatham House School), in which one of my school-fellows is supposed to have fallen down a shaft, and laid all weekend awaiting rescue. A Ramsgate policeman, Mr Heard, once told me he had plotted all these things on a street plan, and found they formed a rough horse-shoe around the older part of the town. Of course, many of them could have been cess-pits, chalk was good for that sort of thing...

Yours sincerely

DERIC FULLER,

4 October 1980

54 Clochbar Avenue, Milngavie, GLASGOW, SCOTLAND.

THE HERMIT OF DUMPTON

John E. Vigar

Kent has numerous excavations in the chalk subsoil. These range from the early dene-holes to the 19th Century quarries, and were for the extraction of chalk whether it was for building or lime-burning. In addition, there are the communications tunnels mainly used by the railways. However, there are a few excavations in the county that were dug for other purposes. One such cave was situated at Dumpton near Ramsgate, and was for a long time the dwelling place of Joseph Croome Petit, a retired ornamental plasterer. Apparently he was born near Wingham in or about 1742, and continued his trade for many years by travelling around the southern counties; on one such occasion he was working near Dumpton when his attention was drawn to a cavity in the chalk. Many years later a serious accident forced him to cease his occupation and, as he was elderly, he looked for somewhere private to end his days. He thought back to the cavity at Dumpton, and decided to look into the possibilities of converting it to a dwelling.

The cavity was situated in the grounds of Northdown House, and the tenant at that time, a Mr Gisby, readily gave his permission. Within a very short time the cave had been extended and furnished to quite a high standard. A leaflet was published in 1823 which described the interior as follows:

> "His bed was in a little recess, opposite the fire-place, hollowed out by his own hands; a wooden table, of his own manufacture, was covered with a white cloth, on which was disposed his small stock of crockery-ware. His kettle was warm and bright, and the sides of the cave were papered over. His door was sheltered with a curtain, and fastened by a small padlock."

He lived there for many years, mainly on potatoes and bread, and he earned money by selling small items such as laces. It would be interesting to learn of any other subterranean structure being used in a similar fashion in Kent.

THE UNDERGROUND PASSAGES AT "BECKETS", EASTRY, SANDWICH, KENT

G. Beryl Moncur

The village in which Miss Pedder Morgan and I live looks a little uninteresting today unless we glimpse into the old corners still left. It is two and a half miles south of Sandwich, on the Dover Road. Our house in on the Old Roman Road linking Richborough and Dover.

In Saxon days, Eastry was the capital of the Kingdom of East Kent. The palace was close to the little Saxon church and had a fine Reeve Hall attached, rebuilt in the Middle Ages. In Norman times, the Palace became the overnight stop for the Archbishops of Canterbury on their way to and from the continent. We can still catch a little of the reflected glory of Prior Henry of Eastry, one of the most outstanding Priors of Canterbury Cathedral.

The core of our house was built as one or two cottages in the 12th Century and the medieval oak roof structure, wall framework, and some of the old wattle and daub were incorporated in later building. It is not shown on the 1540 map of our area but is mentioned in the Eastry Rental of 1511.

During the 18th Century, life became exciting here, for Eastry was part of the smuggling network of North Kent. There are many old houses in Eastry with smuggling associations and it seems that many of the subterranean passages utilised were originally dug for lime. The Five Bells and the Coach and Horses, our two oldest Inns, have deep passages connecting their cellars. How many passages or psuedo-wells were dug during those years, no one knows today. Many have fallen in or have been filled. Hopper wrote in 1901:

> "The village has many and long subterranean caves all entered by one door. They extend a long way under roads, fields and houses. These caves or passages, it is said, were used by smugglers, it being an easy distance from the seashore.
>
> I may here mention that my father once had a horse and cart and used to cart the smugglers' goods of a night from place to place for consideration until one night it so happened that some Dover smugglers were indebted to some Eastry smugglers and the Dover smugglers agreed to pay the Eastry men with casks of rum. So my father was engaged by the Eastry men to fetch the casks from Dover. The casks were loaded, the receipt was given, and everything went well until they arrived at Eastry in the dead of night, and the casks were deposited in one of their houses. Then one of them said, "Let's have a taste and see if it is good, Frank" (my father's name was Frank). Of course my father did not object although he was not fond of spirits. The contents of the first cask was very good, so they said, "We will try another." They did so and it turned out to be filled with water. My father was so disgusted at one carrier robbing another that he made that his last job for them. My father was no thief."

Our cottage was one of those in the village with underground passages, and these have been surveyed by Mr Pearman (Fig. 1).

The passages were cut out with a small tool, maybe a small pickaxe, and are narrow, with arch-shaped roofs and are often only 5 feet (1.5 m) or just over in height. They lead round in elongated quadrant shapes to a deep well just behind the cottage, and are at their deepest 50-60 feet (15-18 m) down. As one descends, each quadrant gets smaller and closer to the well and each has an opening into the well. All but one of these openings circle the well. These old passages run mostly under the garden and the house but there is one which runs out to Woodnesborough Road. On the whole, this part of the system remains unaltered.

The highest quadrant runs under the house, but if I am in my dining room (which is one of the oldest rooms) and someone is in the middle of the curve of this passage, we can converse quite clearly. If there is no entrance directly from the house to the passages, maybe this was a convenient means of communication, particularly when there was imminent danger from the Excise Officers.

The well is normally dry, but I have known the water seep up and flood the steps of the fifth entrance. The deep groove of the chain or rope attached to the bucket can be clearly seen.

Abraham Foord, his son Henry, and his grandson Frederick, all extracted the chalk from beneath the house for lime-burning. Abraham (1791-1867), a bricklayer, owned the property from 1811 and began extracting the chalk and burning it for lime in a kiln on the lower lawn. By 1822, he was making money and the rateable value of the house rose from £5 to £6. Either he, or his son Henry, made the cottages into one dwelling and extended it to the south to meet Gore Road. They gave the house its Georgian frontage, and many other features which still grace it today.

The Foord family continued to extract chalk and burn it for lime until 1907, when the villagers were filled with fear lest they and their homes fell into the excavations. These were, in fact, nowhere near their cottages. The Foords extended the working no further and where they downed tools can be clearly seen. But they did heighten and widen the existing passages. The last member of the family to work the lime kiln was William Frederick Foord, who died in 1918.

The chalk was first trundled along and up the first of the old passages, where half-way along was a wide shaft leading up into the lime kiln. It is still blackened by the smoke. Later when the excavations were being made at a much deeper level and further away, a deep high shaft was cut from almost the lowest level, at any rate level with the wide high passages, and this led up and out into the garden at the back of the cottage and near to Gore Road. The chalk was hauled up and out of the shaft and so round to the kiln. Two finger-like indents were made half-way up the shaft. These were made for the workman to be able to control the buckets going up with a pole.

Until recently, the old people in the village remember the chalk being drawn up and taken to the kiln. This continued to work until about the time of the First World War. Maybe labour became scarce.

In front of the kiln the Foords built a cottage for some of their workmen. We have found the foundations of this. But most of their labour force must have been drawn from men at the Eastry Workhouse, needing an odd shilling or two.

It is easy to recognise the passages dug by the Foords as they are wide, high and, towards the end of the Foords' time, were given smooth surfaces. Large tools must have been used, and instead of the curves of the older passages, they are straight with side passages running off at right-angles. At intervals there are beehive structures.

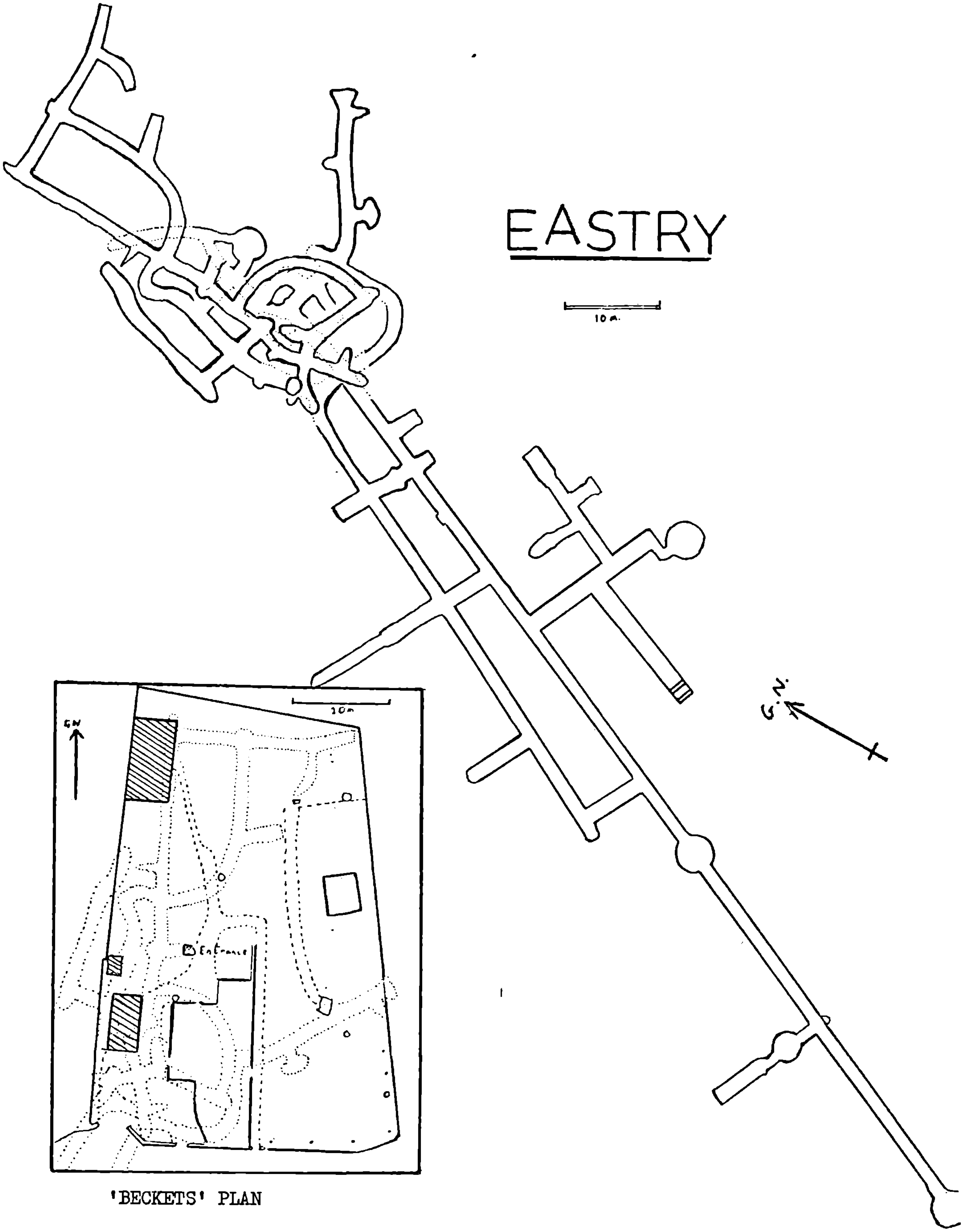
In later years these passages, cut by the Foords, were used for festivities on Eastry Fair days and the well was used as a wishing well. Mr Jack Bones remembers throwing pennies down it as late at 1930.

As time passed, and as was the fashion of the times, they began to make a folly of the passages - rooms appeared. One is known as the Chapel and another as the Picture Gallery. Along the walls of some beehives, rooms and passages, are hundreds of nails. These were puzzling until we found out that these walls had been panelled with the wood of old coffins.

We are grateful to Mrs Walton of Tilmanstone who found, in an old scrap book, a very interesting article about the passages, particularly those cut out by the Foords. An extract follows:

> "Their nomenclature is very amusing: boards or slates fixed upon the chalk inform us that one is "Walton Street", another "Cannon Street", or "Fleet Street", "The Strand" or "Church Street". But amongst them all "Oxford Street" is the finest and is not far from five hundred feet in length. In olden times on Fair Days and Festivals and at Christmas, while country dances went on to right and left, all up and down this

(continued on page 16)



'BECKETS' PLAN

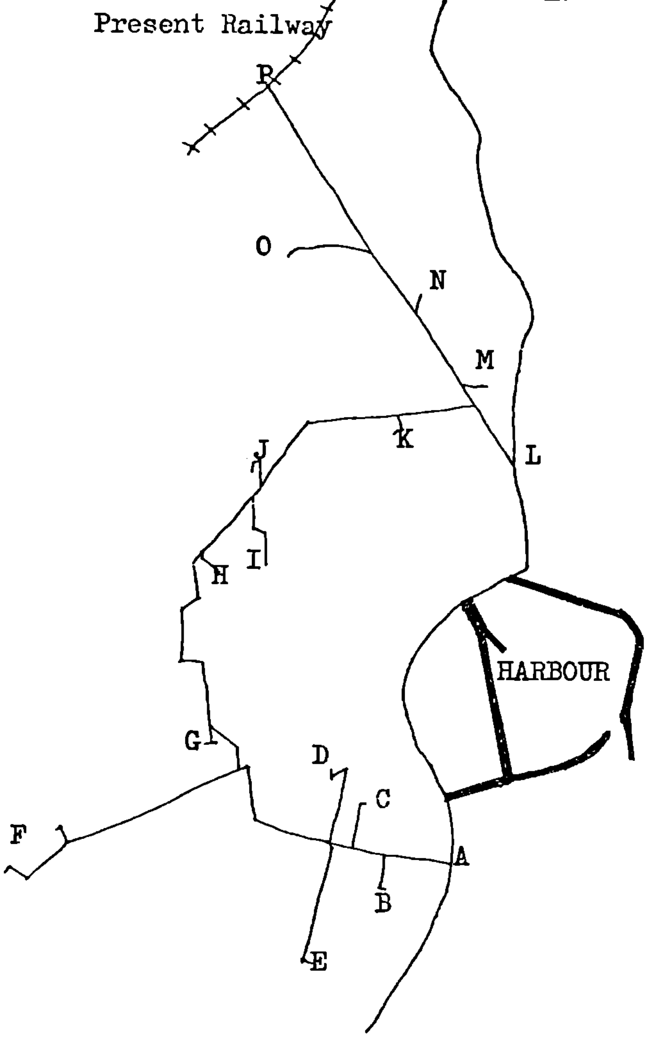
Plan taken with permission from Caves and Tunnels in Kent, Records Volume No. 6. of the Chelsea Speleological Society (H. Pearman, 1973)

RAMSGATE DEEP SHELTERS

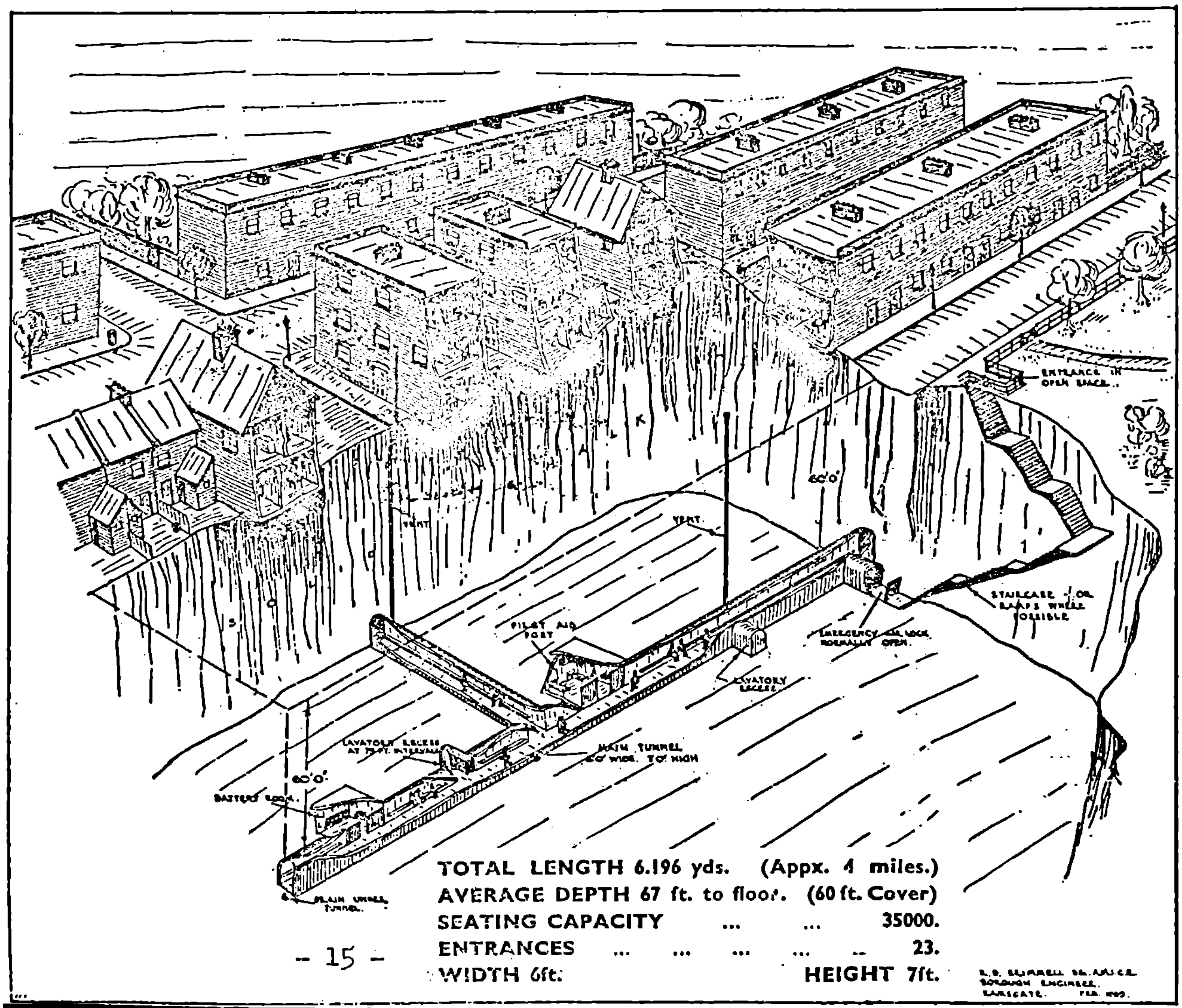
KEY TO ENTRANCES

A	West Cliff Harbour
B	Spencer Square
C	Liverpool Lawn
D	Queen Street Car Park
E	Hospital
F	Ellington Park - 2 Entrances
G	Cannon Road Car Park
H	Townley Castle
I	St. George's School
J	St. Luke's Recreation Ground
K	Arklow Square
L	Railway Tunnel South Portal
M	Victoria Parade
N	Synagogue
O	Scenic Railway, Hereson Road
P	Railway Tunnel North Portal

TUNNELS L - P and L - O
are PRE - 1939



A.R.P. DEEP TUNNEL SHELTER—RAMSGATE


ENTRANCE IN OPEN SPACE..
60'0"
VENT.
VENT.
FIRST AID POST
EMERGENCY AIR LOCK NORMALLY OPEN.
STAIRCASE &/OR RAMPS WHERE POSSIBLE
LAVATORY RECESS
LAVATORY RECESS AT 75 FT. INTERVALS
MAIN TUNNEL 6'0" WIDE. 7'0" HIGH
60'0"
BATTERY ROOM.
PLAIN UNDER TUNNEL.

TOTAL LENGTH 6.196 yds. (Appx. 4 miles.)
AVERAGE DEPTH 67 ft. to floor. (60 ft. Cover)
SEATING CAPACITY ... ... 35000.
ENTRANCES ... ... 23.
WIDTH 6ft. HEIGHT 7ft.

R.D. BRIMMELL BSc. A.M.I.C.E.
BOROUGH ENGINEER.
RAMSGATE. FEB. 1939.

Underground Passages, Eastry (continued, from page 13)

> same Oxford Street, the whole of the streets and rooms used to be illuminated by more than four hundred candles and many lanterns. One room was known as the Picture Gallery. The pictures were only done in lamp black and water colours upon large slates. All the paintings were the work of a local celebrity, Mr Drayson, a blacksmith of artistic taste. The walls were decorated with evergreens at Christmas often making pictures - one was of a Saxon warrior with his halberd (halberd was in iron) and coffin plates were nailed over the doors."

Mr Jack Bones confirms that even in his boyhood parties were still being held down in the passages, and that the beehives were used for fortune telling etc.

The Second World War brought a more serious use of the passages when the Home Guard used the long passages for rifle practice.

Our thanks must go first to the late Dr Neil Young and his friends who worked down in the passages, making the first accurate plan of them, both before and during the time we were buying the house above them. Our thanks also go to Dr P.J. Yeend of the Kings School, Parramatta, Australia and Mr Jack Bones, JP of Wells Farm, Eastry, who is an expert in the history of Eastry, to Mrs Walton of Tilmanstone, who found the extract about the parties held in the passages and to many other people who have given us helpful information.

Reference PEARMAN, H.: Newsl. Chelsea Spelaeolo. Soc. 22(5) Feb. 1980, p.56

NOTE OF INTEREST

The fourth episode of "The Fourth Arm", 25th March, 1983, BBC TV presented interior shots of 'Eastlays' stone quarry, Corsham, Wilts. in its ex-wartime ammunition dump condition (masquerading as an underground Nazi V2 factory). Good shots were taken of the slope shaft and round its base showing the huge white-washed area. Members may remember Bull. Subterranea Britannica Nos. 1 and 3 carried items regarding the advertisement when it was for sale in 1974.

Roger Morgan

THE SECOND WORLD WAR UNDERGROUND SHELTERS AT RAMSGATE, KENT

John F. Vigar

The Borough of Ramsgate was one of the first in this country to recognise the need to provide some sort of air raid protection for the inhabitants of the town in the Second World War.

In 1938 two proposals were sent to the Home Office for the provision of a deep tunnel shelter, but these were both rejected on the grounds that they were too premature. Finally, early in 1939 a scheme was approved, and work commenced on the construction of one of the country's largest air raid shelters.

Ramsgate was, in many ways, a lucky area. It lay on a formation of Upper Chalk that had been tunnelled into for many centuries. One of the largest existing tunnels was that used up until 1926 by the South Eastern and Chatham railway, between the main line and the former Ramsgate Harbour Station. This tunnel, 1,630 yards (1,490 m) long, had been leased to General Amusements Co Ltd, who had used part of it for a scenic railway, and who had constructed a spur tunnel to Hereson Road in 1936. It was proposed that these tunnels be adapted for use as a shelter, and as they were already in council ownership this would be a not too difficult task. In addition it was decided to construct another 3.25 miles (5.3 km) of tunnel leading from the existing tunnel, to skirt the town centre in a semi-circular route.

It was an ambitious scheme, but one which more than proved its worth. Tenders were sent out, and more than a dozen estimates received, ranging from £40,000 to £70,000. The contract was finally awarded to the Francois Cementation Co Ltd, at a cost of £40,383. Additionally, the Council had to spend an extra £13,481 on seating, lighting, chemical closets, and the cost of adapting the existing tunnel, which in itself was nearly £4,000. Work started on the new tunnel from the West Harbour Yard early in 1939.

Publicity was immense. Never before had such an ambitious scheme been attempted in a non-metropolitan area. Almost all the national papers carried lead stories on the plans, and the weekly picture papers had regular up-dates on the work in hand. However, the media did not always carry an accurate picture of the work, and the Council was inundated with letters from misinformed readers. One such example was received from an elderly man in Eastbourne who wished to reserve a room in 'the underground nursing home that you are building in the town.' There were also requests from town councils all over the country wanting information on the tunnels and the Borough Engineer, R.D. Brimmell, who had masterminded the scheme, prepared a standard letter to deal with these requests.

The first set of tunnels to be constructed were between the West Harbour and Queen Street, and they were opened on 1 June 1939 by the Duke of Kent. In all there were to be 13 main entrances serving the centre of the town, and 10 smaller entrances created by digging new adits from the railway tunnel.

Work continued night and day. In June 1939 the Council received a petition from the residents of Elms Avenue complaining at the excessive noise emanating from the workings at night. However, the council replied that the construction of the tunnels was of some urgency, and that under the terms of the contract the work had to be completed within six months. In September the same year the council decided to fill in the partly constructed entrance in Vale Square, as this was in an area well served by two other entrances.

In December 1939 another petition was received from the residents of Camden Square asking for a tunnel and entrance to serve that part of the town. However, as this would have cost an extra £4,000, and the area was within the standard quarter of a mile (400 m) from an existing entrance set by the council, this was deferred.

The local newspapers carried the official notices from the council with regard to the tunnel shelters. As new entrances were opened these were allocated to people living in particular streets, and strict regulations were laid down for those using the shelters. Smoking was not allowed, pets and perambulators were not admitted. Even by September 1939 some sections of the tunnel still had no lighting. The Queen Street section had its own batteries and generator, but the other sections relied on the town supply, which took some time to be installed. There was one occasion when the town supply was cut off, and following this the council purchased 200 hurricane lamps for the tunnels.

The main tunnel ran from the Harbour, via Queen Street, Cannon Road and Boundary Road to the railway tunnel in the East Cliff. It also had spur tunnels to the various entrances in the town. The main tunnel was basically 6 feet by 7 feet high (1.8 by 2.1 m), and was in unlined chalk at a depth of about 67 feet (20 m) The entrances in the spur tunnels were lined with 12 inches (30 cm) of reinforced concrete. The entrances themselves were dug, with one exception, on council-owned land, such as parks and squares, and the whole length of the tunnels ran along the routes of public highways to avoid any problems with easements.

As the tunnel was open at both ends, and also because of the many entrances, and the ten air ducts along its length, the tunnel was very well ventilated. In actual fact when the first section was opened it was found that the current of air was too strong, and regulators had to be fitted on the ducts to slow it down. Each entrance had a steel gas-proof door, and could be closed in turn to allow fresh air into the system from an uncontaminated part of the town in the event of a gas attack. At 75 feet (23 m) intervals along the main tunnel were lavatory recesses, and at every 1,000 feet (305 m) there was a first aid post. A special entrance was constructed from the Hospital and it was thought that this would be beneficial, not only in bringing the patients down from the wards, but for taking casualties up after the raids, when the roads would be chaotic. The tunnels had a seating capacity of 35,000, but it was estimated that it would hold up to 60,000 without any difficulty.

There is a report that the Salvation Army canteen visited just one of the entrances during a raid, and served 600 people with 200 cakes, and 26 gallons of tea! Another contemporary account shows how a typical Ramsgate shopkeeper used the tunnels:

> "After breakfast I put the remains of the tea into a flask and pack some eatables and fruit. Then I prepare and cook dinner, and put the plates ready to steam up for the meal when we can get it. I then do the housework, and if the sirens sound, shut the shop and get down to the shelter, so that no matter how long the raid lasts we are prepared. In the shelter I read or knit. One day we found a nice little nook, and sang and cracked jokes. It was a cheerful group, and we were all thankful to those who had provided the tunnels for us."

One visitor to the tunnels was the Prime Minister, Winston Churchill. He was visiting Ramsgate when the siren sounded, and he was ushered to the Queen Street entrance. As he was about to enter, the Mayor noticed that Mr Churchill had just lit one of his legendary cigars. The Mayor tactfully informed the Prime Minister that smoking was not allowed in the shelters. Promptly he took the cigar from his mouth and threw it to the floor. 'There goes a good un', he is reported to have said.

The tunnels certainly proved their worth, because the town was frequently the scene of air raids, and the surface trenches and Anderson shelters proved most ineffective. After the war the tunnels were closed off, but due to the amount of work in clearing up the other defences, the entrances were not blocked entirely, and as late as 1948 the Council received a claim from the Governors of St George's School in respect of a boys lavatory that had subsided as a result of the adjoining tunnel entrance being left open.

At the present time all the entrances are blocked off. Most have been slabbed over, but some are still recognisable. The railway tunnel is still leased to the amusement company who use it for storage, but the air-raid tunnels lie empty and forgotten, possibly sealed forever. As well as the entrance slabs one can still see some of the ventilation shafts, and it was through one of these that in 1972 Mr Brian Inglessi wiggled a rolled up newspaper to attract attention, after finding his way into the system and getting lost. After his rescue, Ramsgate Council secured all the entrances to ensure that no further accidents should occur.

I should like to thank the following people who have helped me in the preparation of this paper: B. Inglessi Esq, P. Marshall Esq, The Ramsgate Society,

Underground Passages, Ramsgate (continued)

and Thanet District Council, without whose help I would not have been able to record the history of these unique tunnels for future generations.

Selected Bibliography

The East Kent Times	12.10.38	The Times	23.5.39
Advertiser and Echo	8.9.39	Railway World	May 1961
Fire Protection	October 1939	War Illustrated	27.9.40

Republished from Chelsea Spelaeological Society Newsletter, Vol. 24 No 11, Aug 1982, (with the addition of the illustration) with the permission of the Editor.

BOOK REVIEW

WAR PLAN UK: The Truth about Civil Defence in Britain, by Duncan Campbell. Burnett Books/Hutchinson Publishing Group, 1982. £6.95 paperback, 488 pages, 47 plates, ISBN 0 09 150671 9 (also available in hardback).

This volume will be of considerable interest to the student of purpose-made subterranean defence works and of the re-use of other underground spaces for similar and related purposes. Information is presented, especially in Chapters 7 (Going Underground) and 8 (Nuclear Citadels), on subterranean structures in London; deep public air raid shelters; subterranean factories of World War II and their subsequent use; and so forth. There is an appendix listing wartime headquarters in Greater London (Region 5), and another listing major underground factories and depots of World War II. Official sources have been used to a considerable extent, and the volume (whatever the reader's assessment of the arguments advanced concerning the politics of civil defence) is a useful aid to the understanding of the recent history of numerous underground spaces.

P.W. Sowan

THE SURVEYING OF THE CHALDON BOTTOM FIRESTONE QUARRIES, NEAR MERSTHAM, SURREY:

Interim Report, May 1983

Peter Burgess

Historical Background

In 1967 cavers based in East Surrey dug their way into an extensive series of galleries excavated in the Cretaceous Upper Greensand strata about 1 km to the east of Merstham village. These galleries were later proved to date from Medieval times, or possibly earlier, and were dug to extract stone for building and for refractory uses in hearths and furnaces. This latter use led to the term 'Firestone' being used for this calcareous sandstone.

In subsequent years many people have attemped to produce surveys of the quarry system with varying degrees of success. Notable amongst these was work undertaken in the early 1970s by members of the Croydon Caving Club. Sheets of this survey inspected by the author reveal an impressive attention to detail but an unfortunate lack of accuracy, when compared to current work, and a concentration of effort on open passage with little attention paid either to side passages or accessible areas partially backfilled with waste.

Moves Towards Scheduling the Quarries as an Ancient Monument

In February 1980 Dr Jane Geddes of the Department of the Environment visited the quarries following attempts by Paul Sowan to have the stone quarries considered for scheduling as an Ancient Monument. Scheduling is considered necessary by those pursuing the matter for the following reasons:

a) to safeguard the archaeologically important entrance areas, both inside and outside,
b) to maintain and control access underground, and
c) to preserve and protect the underground workings themselves.

Subsequent to the DoE Inspector's visit it became apparent that three actions were required before further proposals could be made to the Scheduling Section. These were:

a) determination of ownership of mineral rights,
b) preparation of a plan of the underground workings, and
c) preparation of a plan of surface features adjacent to the entrances where surface works and operations may have been undertaken.

Underground Survey

In November 1981, following completion of the survey of a nearby excavation known as Football Field Quarry, work commenced on the surveying of the impressively extensive quarry workings at Chaldon Bottom. The initial visits were irregular and, compared with later work, covered very little ground. It became obvious that in order to produce a survey of good quality within a reasonable timescale a careful rethink was required of the methods being used. The meticulous attention to detail that characterised our early sessions was rationalised and the frequency of visits was increased.

The scale of the plan is to be 1:500 (see Fig. 1). At this scale it is not necessary to measure distances more accurately than to the nearest 0.1 m. Included on the survey are the following features - stone pillars, backfill, drystone retaining walls, roof-falls and points of interest such as evidence of sledge ruts on the floor, wooden posts and dressed stone blocks.

The equipment used has recently been augmented by the £100 grant from the Lloyds Bank Fund for Independent Archaeologists to Subterranea Britannica, reported in Bull. Subterranea Britannica No. 17. This money has been used to buy a Suunto KB-14/360R compass which is accurate to within 0.5° and has a strong metal case - tougher than the earlier plastic Suunto model used till recently which was, however, no less accurate. Also purchased was a Suunto clinometer which will be used to add angles of dip to the plan. These are never more than 10°, and need not be considered important when drawing up the plan survey. A further 30 m tape has been purchased to add to the three tapes already being used.

Minimal closing errors on the several closed loops surveyed to date have given much encouragement to the surveying team, and the problems have now become ones of finding time to draw up the work of each session before the next visit, rather than problems associated with the surveying itself. To date 5,500 m of passage have been surveyed, which is estimated to represent 30% of the total accessible workings of the Chaldon Bottom quarries. At that rate, it is estimated that the project will not be completed until well into 1984. However, as we concentrate more on areas remote from entrances, more time will be spent getting to and from those sections and less time actually measuring them, so this estimate may be optimistic.

Personnel

The survey is being co-ordinated and drawn by Chris Bayley of Unit Two Cave Research and Exploration Group, who is assisted by the author and other members of Unit Two.

DUDLEY AREA STUDY WEEKEND,

24-26 June 1983

Deryck Laming

There were many interesting and enjoyable occasions on Subterranea Britannica's 1983 Study Weekend in the West Midlands, centred on Himley Hall near Dudley; but for me the highlight of the weekend was on Saturday when our canal barge, after passing through a considerable length of tunnel, tied up beside another similar one laden with a superb buffet lunch! The price to be paid for my indulgence on that occasion was having to 'walk' the barge out along a section of tunnel, lying with my back on a hard board and using my feet on the tunnel roof. It's quite instructive to see just how much effort has to go into propelling the barge at even a modest speed; but people used to do this for a living.

The underground workings for limestone in the Dudley area have already been described by Martin Guest, complete with map (Bull. Subterranea Britannica No 17, pp 10-16) and to Martin and Margaret must go sincere thanks for the organisation of a very successful weekend. After lunch in Hurst's Cavern the barge was diverted into Dark Cavern and we scrambled through a squeeze into a larger dry cavern, eventually exiting to surface somewhere on Castle Hill. A wandering ice cream van was hailed and we refresbed ourselves while the ice cream man looked on in astonishment at his mud-streaked customers.

The weekend had started with an evening of members' slides, though some had gone instead to Dudley Zoo for a night down a bear pit or something. As usual on study weekends, the slide shows were almost as enthralling as the underground visits, as many members take a great deal of care to get good photographs underground. There was a similar show on Saturday, preceded by a search through the grounds of Himley Hall for an ice house (cut deep into the red sandstone) and an air raid shelter, likewise.

On Sunday we went by privately-run West Midlands bus to look at the red sandstone rock houses at Kinver - for a change, we went upwards - and then to the Glynne Arms, a pub so distorted by mining subsidence that one felt queer going into it, even before drinking a drop. Lunch was taken in suitable surroundings in the Black Country Museum by the canal in Dudley, a most interesting collection of cottages, shops, coal mine, industrial machinery and a working passenger tramway, complete with a collection of local characters in traditional costume. Fascinating though this was, we were not to be denied our underground interest entirely, and a 300-yard long walk through Coseley Tunnel brought us down to our proper function again. A most enjoyable weekend.

DATES FOR YOUR DIARY

SATURDAY, 15 OCTOBER, 1983: Subterranea Britannica Day Conference, "Strathaird", Lucy Cavendish College, 10.30 a.m. to 4.30 p.m.

SATURDAY, 28 JANUARY, 1984: Subterranea Britannica Day Conference, venue as above.

Forthcoming Courses at Peak National Park Study Centre:

21-23 OCTOBER, 1983: Minerals, Rocks and Fossils.

18-20 NOVEMBER, 1983: Caves of the Peak District.

2-4 MARCH, 1984: Mines of the Peak.

Booking forms and additional details can be obtained from Peak National Park Study Centre, Losehill Hall, Castleton, Derbyshire S30 2W8.

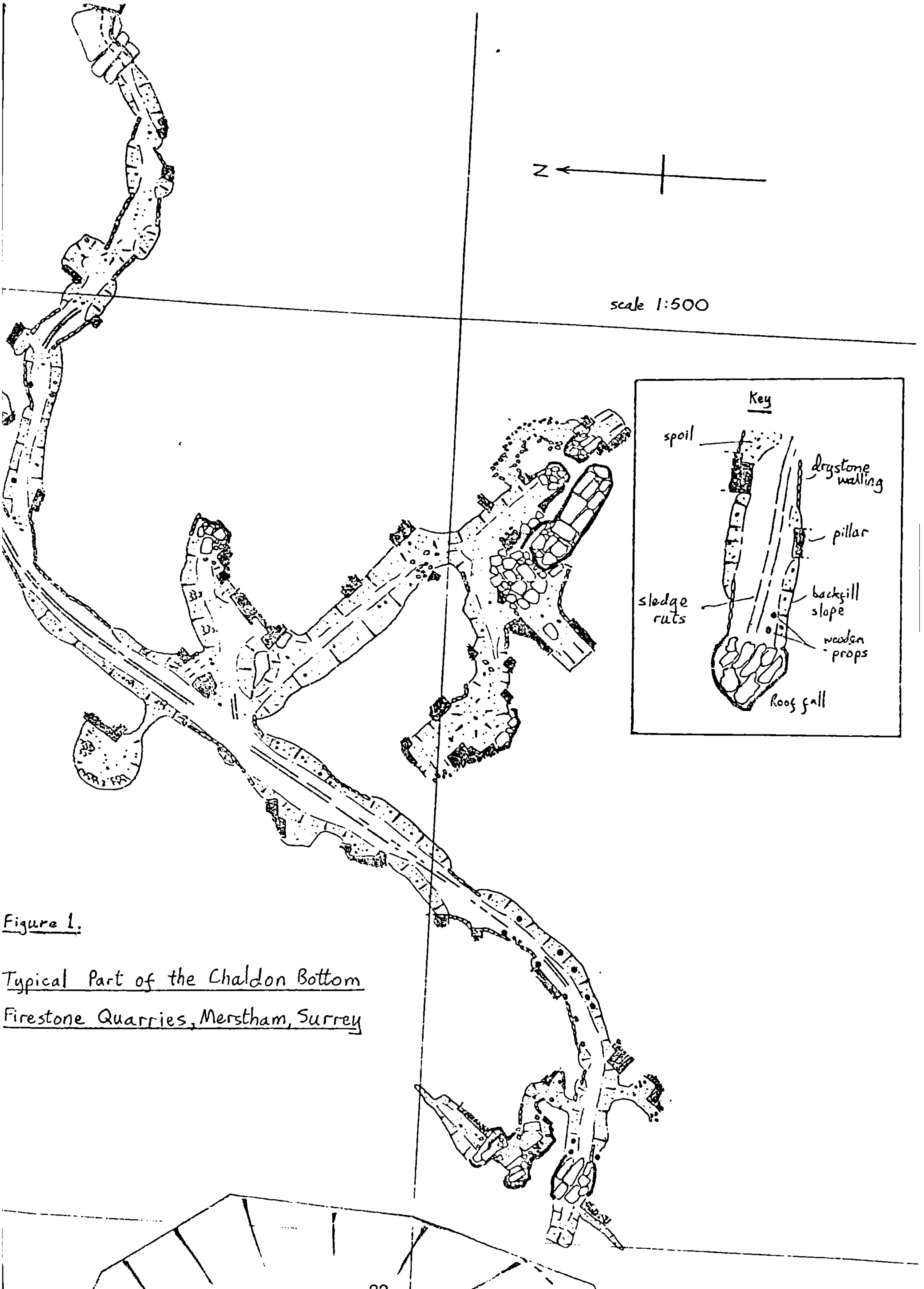


Figure 1.

Typical Part of the Chaldon Bottom Firestone Quarries, Merstham, Surrey